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Safety Applications Project
FY18 Goals & Progress, FY19 Planning

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Finished In Progress Not Started

FY18 Goals and Progress: Capabilities

- Resolve bug on Sequoia.
- Begin PAGOSA->FLAG link
- FLIP+MPM implementation, documentation, regression testing, and user support
- MATCH implementation, documentation, regression testing, and user support
- Inline EnSight implementation, documentation, regression testing, and user support
- Add testing for PAGOSA->XRAGE link
- Increase maturity of an analysis package
- Windowing regression testing and user support
- Resolve unphysical HE temperature issue
- Add a new in-situ analysis package

Finished In Progress Not Started

FY18 Goals and Progress: Infrastructure

- CMF authority implementation, documentation, testing, and user support
- Set up issue tracker and collaboration space to log bugs, share progress, and archive procedures
- Regression tested builds deployed on all LANL platforms, all code versions (e.g. single precision, double precision)
- Convert code metrics to Splunk, build reports, and archive reports
- Standardize Sequoia build/test
- Convert Input Reference and Physics Manual to Latex
- Transition from per-machine to per-architecture builds
- Transition from in-source to out-of-source builds

Finished In Progress Not Started

FY18 Goals and Progress: Other

- **DSD Demonstration**
- **ASC Code Performance Benchmark**
- **International Test Problem Collaborations**

FY19 Planning: Capabilities

- Finish an analysis package including implementation, documentation, regression testing, and user support
- Begin implementation of direct HDF5 output to an analysis package
- FLIP+MPM user support and “standardization”
- MATCH updates and user support
- ParaView documentation, regression testing, and user support
- Parallel EnSight implementation, documentation, regression testing, and user support
- Inline Gen implementation, documentation, regression testing, and user support
- Finish PAGOSA->FLAG link implementation, documentation, regression testing, and user support
- WSD reactive burn and Davis EOS implementation, documentation, regression testing, and user support
- Material robustness improvements
- Automatic material priorities
- Remove EOSPAC 5 and add pre-inverted tables to EOSPAC 6

FY19 Planning: Infrastructure

- **Extend CMF authority to LAP codes**
- **Add GNU build/test**
- **Resolve compiler warnings**
- **Increase code coverage of regression tests**
- **Update vectorization/compile flags**

FY19 Planning: Other

- General user support and bug fixes
- Present SAP capabilities at NECDC/NEDPC, MultiMat, International Collaborations, …
- ASC Code Performance Benchmark
- Profile PAGOSA